SWI9X30C 2.0

Customer Release Notes

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Document History

Rev XX.YY	Date YYYY/MM/DD	Updates	Author
01.00	2015/03/12	Creation	AV
01.01	2015/04/10	Added Release 4	AV
01.02	2015/05/20	Added Release 5	AV
01.03	2015/06/19	Added Release 6	AV
01.04	2015/07/24	Added Release 7	AV
01.05	2015/08/14	Added Release 8	AV
01.06	2015/09/18	Added Release 8.1	AV
01.07	2015/09/25	Added Release 9	AV
01.08	2015/11/06	Added Release 10	AV
01.09	2015/12/04	Added Release 10.1	AV
01.10	2015/12/09	Added Release 10.2	AV
01.11	2016/01/15	Added Release 11	AV
01.12	2016/02/12	Added Release 12	AV
01.13	2016/03/04	Removed Pre-commercial releases	AV
01.14	2016/03/15	Added Release 13	AV
01.15	2016/04/01	Added Release 14	AV/IM
01.16	2016/05/13	Added Release 15	AV
01.17	2016/05/27	Added Release 14.1	AV
01.18	2016/06/28	Added Release 16	AV
01.19	2016/10/14	Added Release 16.1, 16.2	IM
01.20	2016/11/07	Added Release 17	IM
01.21	2017/01/25	Added Release 18	IM
01.22	2017/04/28	Added Release 18.1	IM
01.23	2017/05/09	Added Release 18.2	IM
01.24	2017/09/22	Added Release 19	IM
01.25	2017/11/24	Added Release 20	IM
01.26	2018/02/20	Added Release 21	AV
01.27	2018/05/01	Added Release 22	AV
01.28	2018/05/01	Fixed FW tag for Release 22	AV
01.29	2018/07/10	Added Release 23	AV
01.30	2018/08/07	Added Release 24	AV
01.31	2018/09/27	Added Release 24 known issue	SP
01.32	2018/10/09	Added Release 24/23 known issue (AirVantage)	SP
01.33	2019/03/08	Added Release 25	AV
01.34	2019/05/27	Added Release 26	SP
01.35	2019/08/28	Added Release 27	SP

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1 Introduction

1.1 Scope of this document

This document describes changes in the SWI9X30C 2.0 line of firmware.

1.2 Audience of this document

These release notes may be distributed to all direct and indirect customers.

1.3 New Features / Enhancements

Feature	Description
See Individual Releases below.	

2 Abbreviations and definitions

Abbreviation/Acronym	Definitions
AT	Access Terminal, Attention
FLOG	Firmware Log
FOTA	Firmware Over The Air
FTM	Factory Test Mode
IMS	IP Multimedia Subsystem, Internet Multimedia System
IMSW	Image Switch
MBIM	Mobile Broadband Interface Model
OMA	Open Mobile Alliance
OMADM	OMA Device Management
OoS	Out of Service
PC	Power Control
PDN	Packet Data Network
QMI	Qualcomm MSM Interface, Qualcomm Modem Interface
SCTP	Stream Control Transmission Protocol
SMS	Short Message Service
WoWWAN	Wake on WWAN
UI	User Interface

3 Related documentation

Ref. #	Doc. #	Document title
[R-1]	4117727	AirPrime EM74xx/MC74xx AT Command Reference
[R-2]	4116235	AirPrime EM7430 Product Technical Specification
[R-3]	4116236	AirPrime EM7455 Product Technical Specification
[R-4]	4116237	AirPrime MC7430 Product Technical Specification
[R-5]	4116238	AirPrime MC7455 Product Technical Specification

4 Compatibility

Hardware compatibility

Product compatibility list
EM7455
MC7455
EM7430
MC7430

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5 SWI9X30C 2.0 Release 27

This section describes changes since the previous major release.

5.1 Software Release Description

5.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.33.03.00
Application	SWI9X30C_02.33.03.00
Date of generation	2019/08/28 20:59:30UTC
Binary Size	61.5 MB (compressed binary)
IMEI SV	20
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010234-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

5.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver	None	
Skylight	4892	
Linux QMI SDK	04.00.19	

5.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4955

5.2 Software Changes Description

5.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Affected Domain
QTI9X30-2772	Merge Qualcomm Stack MDM9635M.LE.3.0.c2-000010234.1 - QTI9X30-2781 AT&T Critical Security CRs	SYSTEM
QTI9X30-2746	Add Verizon OMA-DM FOTA support	OMA-DM
QTI9X30-2768	Update ./DevDetail/SwV to report application processor version rather than the FwV node value.	OMA-DM
QTI9X30-2778	Allow OMA-DM sessions during AirVantage sessions	OMA-DM
QTI9X30-2811	Prevent runtime suspend after wakeup event	USB
QTI9X30-2798	Increment SVN to 20	PTCRB

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ID	Description	Affected Domain
QTI9X30-2799	Update TS.25 list to May 2019	PTCRB
QTI9X30-2775	AT!ANTSEL settings get reverted in some Carriage Aggregation combinations	AT
QTI9X30-2658	AT port becomes unresponsive after AT!GPSXTRASTATUS?	AT
QTI9X30-2662	AT!DASCHAN returns incorrect response	AT
QTI9X30-2786	Incorrect failcode in AT!GPSSTATUS? after AT!GPSEND=0	AT
QTI9X30-2790	Duplicate +WDSI:0 indication after AirVantage FOTA update	AT / AirVantage
QTI9X30-2826	Incorrect response to AT+WDSC=4,0	AT / AirVantage
QTI9X30-2803	Report an error if invalid dframe is provided in AT+CCHO	AT
QTI9X30-2709	Accept quoted parameters in AT+CCHO, and return valid error codes if parameters contain invalid characters	AT

5.3   Security Correction / Improvements

CVE	Description
CVE-2019-10511	Improper Validation of Array Index in GSM EDGE Radio Access Network
CVE-2019-10516	Buffer Over-read Issue in Multi Mode Call processor
CVE-2019-10552	Buffer Over-read Issue in Multi-mode Call Processor
CVE-2019-10551	String Errors in Modem Data
CVE-2019-10500	Incorrect Calculation of Buffer Size in NAS
CVE-2019-10577	Buffer Over-read Issue in Modem Data
CVE-2019-2335	Loop with Unreachable Exit Condition in NAS
CVE-2019-10487	Buffer Over-read Issue in Multi-mode Call processor
CVE-2019-2296	Integer Overflow to Buffer Overflow Issue in LTE
CVE-2019-10525	Stack-based Buffer Overflow in WCDMA
CVE-2015-9054	NULL pointer dereference in GPS during GAL decoding
CVE-2019-10485	Loop With Unreachable Exit Condition in GSM EDGE Radio Access Network

5.4   Known Issues

This section presents all known issues in this release.

ID	Description	Affected Domain
QTI9X30-2745	Rare Yellow Bang observed in USB stress testing	MBIM
QTI9X30-2750	After upgrading to R27 AT&T, do not downgrade to R18.2 AT&T; otherwise, private APNs may not be persistence in some upgrade/downgrade scenarios	APN

6 SWI9X30C 2.0 Release 26

This section describes changes since the previous major release.
Release 26 improves USB stability with USB Selective Suspend enabled.

6.1 Software Release Description

6.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.32.11.00
Application	SWI9X30C_02.32.11.00
Date of generation	2019/05/15 21:52:20UTC
Binary Size	61.5 MB (compressed binary)
IMEI SV	19
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010232-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

6.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver	None	
Skylight	4892	
Linux QMI SDK	04.00.19	

6.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4944

6.2 Software Changes Description

6.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Affected Domain
MOLEMMC9X30-1408 MOLEMMC9X30-1477 QTI9X30-2534 QTI9X30-2712 QTI9X30-2735 QTI9X30-2783	Fixed a module crash that occurs during USB Selective Suspend and improved USB stability	USB
QTI9X30-2767	Fixed issue causing AT&T FirstNet testcase LTE-BTR-1-8272 to fail with Linux SDK	AT&T/SDK

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ID	Description	Affected Domain
QTI9X30-2765	Fixed an issue which may prevent Windows 10 from detecting an eUICC in Slot 2 as an eUICC	UICC
QTI9X30-2774	Increment IMEI SV to 19 for PTCRB requirements	PTCRB

6.3 Security Correction / Improvements

None

6.4 Known Issues

This section presents all known issues in this release.

ID	Description	Affected Domain
QTI9X30-2745	Rare Yellow Bang observed in USB stress testing	MBIM
QTI9X30-2750	After upgrading to R26 AT&T, do not downgrade to R18.2 AT&T; otherwise, private APNs may not be persistence in some upgrade/downgrade scenarios	APN

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7 SWI9X30C 2.0 Release 25

This section describes changes since the previous major release.
The main fixes for Release 25 are:
- increase USB stability in suspend/resume and idle scenarios;
- Anatel IPv6 conformance;
- sub-PRI private APN.

Release is only to be used without USB Selective Suspend due to module stability issues. See Known Issues.
Certification effort is planned for AT&T. After upgrading to R25 AT&T, do not downgrade to R18.2 AT&T; otherwise, private APNs may not be persistence in some upgrade/downgrade scenarios

7.1 Software Release Description

7.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.32.08.00
Application	SWI9X30C_02.32.08.00
Date of generation	2019/03/14 00:24:55 UTC
Binary Size	61.5 MB (compressed binary)
IMEI SV	18
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010232-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

7.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver	None	
Skylight	4892	
Linux QMI SDK	04.00.19	

7.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4873

7.2 Software Changes Description

7.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Affected Domain
QTI9X30-2668 QTI9X30-2554	Merge Qualcomm Stack MDM9635M.LE.3.0.c2-000010222.1 to address multiple issues, including: - QTI9X30-2597: Fixes to address Anatel IPv6 conformance tests - QTI9X30-2676 / QTI9X30-2677: logmeasurementinfo contains incorrect data location information in rare conditions.	SYSTEM
QTI9X30-2686	Fixed issue where Initial Activate Date was not in the correct UTC format	AT&T / ODIS
QTI9X30-2728	Fixed issue when setting the heartbeat timer via AirVantage was not being applied correctly	AirVantage
QTI9X30-2633 QTI9X30-2682	Fixed an occasional crash observed during FOTA update	AirVantage
QTI9X30-2632	Package size is reported as 0 if the module is reset in the middle of a FOTA session	AirVantage
QTI9X30-2629	Fixed an issue when a user agreement is accepted outside of a session to install or reset the module, the module does not reset.	AirVantage
QTI9X30-2650	Fixed an issue where duplicate profiles are created, when an AirVantage session is started with a dedicated AirVantage APN, and the device contains a profile with exactly 15 characters. This may cause future AirVantage sessions to fail.	AirVantage
QTI9X30-2617	Added a new notification QMI TLV for notifying QMI clients about a pending user agreement	AirVantage / QMI
QTI9X30-2671	Added a fix to allow AT+CCLK to execute without a SIM present	AT
QTI9X30-2681	Report GMM PS state in AT!GSTATUS	AT
QTI9X30-2630	Fixed issue where subsequent DNS lookup would fail for internal clients if the DNS would never respond	DATA / DNS
QTI9X30-2680	Update TS.25 list to September 17, 2018	GCF
QTI9X30-2750 QTI9X30-1592	Fixed private APN issue for AT&T PRI v002.049_004 and older. Added sub-PRI persistence feature with backwards compatibility	IMSW
QTI9X30-2717	Apply sub-PRI settings without resetting the module	IMSW
QTI9X30-2635	Increment IMEI SV to 18 for PTCRB requirements	PTCRB
QTI9X30-2256	Added a QMI object to report the status of the GPS_DISABLE pin to the host.	QMI
QTI9X30-2641	Fixed an issue where SMS Status Report cannot be read via AT commands	SMS / AT
QTI9X30-2725 QTI9X30-2726 QTI9X30-2747 QTI9X30-2669 QTI9X30-2711 QTI9X30-2587 QTI9X30-2670	Improved USB stability in suspend/resume, idle, and reset scenarios	USB

7.3 Security Corrections/Improvements

This section presents all security corrections or improvements integrated in this release.

CVE	Description
CVE-2018-11279	Buffer Copy Without Checking Size of Input in 1x
CVE-2018-5916	Information Exposure in MODEM

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CVE	Description
CVE-2018-5915	Reachable Assertion in MODEM IP Stack
CVE-2018-11945	Buffer Copy Without Checking Size of Input in MMCP
CVE-2018-13886	Integer Overflow to Buffer Overflow in MODEM

7.4 Known Issues

This section presents all known issues in this release.

ID	Description	Affected Domain
MOLEMMC9X30-1408 MOLEMMC9X30-1477 QTI9X30-2534 QTI9X30-2712 QTI9X30-2745 QTI9X30-2751	USB stability issues due to USB Selective Suspend when device is connected to network	USB
QTI9X30-2750	After upgrading to R25 AT&T, do not downgrade to R18.2 AT&T; otherwise, private APNs may not be persistence in some upgrade/downgrade scenarios	APN

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8 SWI9X30C 2.0 Release 24

This section describes changes since the previous major release.
The main fix for Release 24 is increasing USB stability in suspend/resume scenarios. Certification efforts are planned for carriers outside of North America.

8.1 Software Release Description

8.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.30.03.00
Application	SWI9X30C_02.30.03.00
Date of generation	2018/07/25 01:10:04 UTC
Binary Size	61.4 MB (compressed binary)
IMEI SV	17
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010218-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

8.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver	4828	
Skylight	4814	
Linux QMI SDK	04.00.15	

8.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4850

8.2 Software Changes Description

8.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Affected Domain
QTI9X30-2594	Update AT+COPS? to consider display conditions set in the SPN SIM file when displaying the network name	AT
QTI9X30-2616	Increment IMEI SV to 17 for PTCRB requirements	PTCRB
QTI9X30-2598	Update QMI_NAS_GET_HOME_NETWORK to use OPL/PNN SIM files for network name when roaming, or detached	QMI
QTI9X30-2542 QTI9X30-2538	Improved USB stability in MBIM mode for host suspend/resume use cases	USB

8.3 Known Issues

This section presents all known issues in this release.

ID	Description	Affected Domain
QTI9X30-2650	Duplicate profiles are created, when an AirVantage session is started with a dedicated AirVantage APN, and the device contains a profile with exactly 15 characters. This may cause future AirVantage sessions to fail.	AirVantage
QTI9X30-2655	Private APN is broken for AT&T PRI v002.043_000 and v002.049_002	DATA

9   SWI9X30C 2.0 Release 23

This section describes changes since the previous major release.
Release 23 fixes a few issues related to AT&T and Sprint certification. Certification efforts are planned for North American carriers.

9.1   Software Release Description

9.1.1   Release identification

Component	Revision
Boot loader	SWI9X30C_02.30.01.01
Application	SWI9X30C_02.30.01.01
Date of generation	2018/07/13 02:24:52 UTC
Binary Size	61.4 MB (compressed binary)
IMEI SV	16
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010218-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

9.1.2   Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	None	
Skylight	4814	
Linux QMI SDK	04.00.15	

9.1.3   Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4839

9.2   Software Changes Description

9.2.1   Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Description	Affected Domain
QTI9X30-2547	Merge Qualcomm Stack MDM9635M.LE.3.0.c2-000010218.1 to address multiple issues, including: - MOLEMMC9X30-1117: Module crashing on Sprint network in certain locations when CA is activated	SYSTEM
QTI9X30-2520	Improve device reset behavior on FW download	STABILITY

ID	Description	Affected Domain
QTI9X30-2593	Do not report roaming to the host on AT&T NW using an AT&T FirstNet SIM	AT&T
QTI9X30-2603	Fixed issue where FOTA job remains "In Progress" until the second LWM2M session is activated by the module.	AirVantage / FOTA
QTI9X30-2430	Add support for +WDSC: 5 for user agreement before rebooting	AT / AirVantage
QTI9X30-2545	Do not add parameter to +WDSI:5 notifications	AT / AirVantage
QTI9X30-2548	Remove dBm/Hz string from VZWRSRP and VZWRSRQ AT commands	AT / VERIZON
QTI9X30-2566	Cleanup internal Firmware Logging buffer that grows unbounded on older FW.	FLOG
QTI9X30-2577	Fixed issue where module continually resets if ICCID range is not provided in the PRI	IMSW
QTI9X30-2544	Increment IMEI SV to 16 for PTCRB requirements	PTCRB
QTI9X30-2600	Update TS.25 list to June 11, 2018	PTCRB
QTI9X30-2585	Cannot delete Carrier PRI files from the module via QMI	QMI

9.3 Known Issues

This section presents all known issues in this release.

ID	Description	Affected Domain
QTI9X30-2650	Duplicate profiles are created, when an AirVantage session is started with a dedicated AirVantage APN, and the device contains a profile with exactly 15 characters. This may cause future AirVantage sessions to fail.	AirVantage
QTI9X30-2655	Private APN is broken for AT&T PRI v002.043_000 and v002.049_002	DATA

10 SWI9X30C 2.0 Release 22

This section describes changes since the previous major release.

10.1 Software Release Description

10.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.29.05.00
Application	SWI9X30C_02.29.05.00
Date of generation	2018/04/25 20:24:47 UTC
Binary Size	61.4 MB (compressed binary)
IMEI SV	15
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010216-STD.PROD-4
Supported H/W	EM7455, MC7455, EM7430, MC7430

10.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	None	
Skylight	4803	
Linux QMI SDK	04.00.13	

10.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4815

10.2 Software Changes Description

10.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Affected Domain
QTI9X30-2495	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010216.4	Updated stack to address multiple issues, including: - AT&T FirstNet CRs - MOLEMMC9X30-709 - Unable to stop data session that is started after a SIM removal and insertion on Verizon network - MOLEMMC9X30-952 - QMI_NAS_GET_TX_RX_INFO_RESP_MSG output does not match AT!GSTATUS or QMI_NAS_GET_SIGNAL_STRENGTH	SYSTEM
QTI9X30-2412	Updated AT!GSTATUS to report correct Cell ID	Updated AT!GSTATUS to report correct Cell ID in WCDMA	AT
QTI9X30-2528	Revert changes to AT$QCRSRP, AT$QCRSRQ	Removed extra characters printed in AT$QCRSRP, AT$QCRSRQ	AT
QTI9X30-2451	Remove extra LF for +CREG	Remove extra LF for +CREG	AT
QTI9X30-2533	Add AT commands for AT&T	Add support for AT+RSRP, AT+RSRQ, AT+RSCP and AT+ECNO	AT / AT&T
QTI9X30-2477	After FOTA update AT!IMAGE is incorrect	After FOTA update, AT!IMAGE shows active FW slot as 255 instead of the correct slot	AT / FOTA
QTI9X30-2510	Missing +WDSI: 18, 100 after power off/on 1 minute	In some scenarios, +WDSI: 18, 100 is missing after FOTA update	AV / FOTA
QTI9X30-2516	FOTA does not restart if interrupted	FOTA update will not automatically start upon network deregistration/registration.	AV / FOTA
QTI9X30-2420	QMI_SWI_M2M_AVMS_EVENT_IND does not report correct session_status	Fixed issue where QMI_SWI_M2M_AVMS_EVENT_IND does not report correct session_status	AV / QMI
QTI9X30-2498	Update AT!GPSEND	Updated AT!GPSEND to return OK of no GPS session is active.	GNSS
QTI9X30-2489	Crash when downloading gpsOneXtra data	In a rare scenario, if the gpsOneXtra server cannot be reached, the module will crash.	GNSS / gpsOneXtra
QTI9X30-2186	RAT selection is not preserved with SINGLEAPN	RAT selection is not preserved if the APN is changed and SINGLEAPN is enabled.	NETWORK
QTI9X30-2519	Fixed issue for low current with UIM2 enabled	Fixed issue where low current wasn't achieved with Release 21	POWER
QTI9X30-2514	Update TS.25 list	Update TS.25 list to Feb 19, 2018.	PTCRB
QTI9X30-2517	Increment IMEI SV to 15	Increment IMEI SV to 15 for PTCRB requirements	PTCRB
QTI9X30-2234	Add QMI support for Antenna Selection	Added QMI command for Antenna Selection via GPIO.	QMI / RF
QTI9X30-2513	AT command to control Rx antenna path	Added an AT command to control the antenna path for SCC on a CA call.	RF
QTI9X30-2434	Slower SIMs will cause crash	SIMs operating at a slower baud rate may cause a FW crash.	UICC
QTI9X30-2527	FPLMN list not updating when issuing at+cops=2	FPLMN list is not updated in all scenarios.	UICC
QTI9X30-2463	Add AT command to force USB Speed	Added AT command to set USB speed.	USB
QTI9X30-2102	Improved USB 3.0 stability	Fixed issue where USB enumeration failed after unplugging/plug USB cable.	USB

10.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
MOLEMMC9X30-1117	Module crashes on Sprint network	Module is crashing in certain locations when CA is activated	Stability

11 SWI9X30C 2.0 Release 21

This section describes changes since the previous major release.

11.1 Software Release Description

11.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.28.00.00
Application	SWI9X30C_02.28.00.00
Date of generation	2018/02/02 23:38:13 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	14
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010214-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

11.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	Build 4802	
Skylight	4670	
Linux QMI SDK	04.00.12	

11.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4805

11.2 Software Changes Description

11.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

Template #:	4124005	Revision:	03.07

ID	Title	Description	Affected Domain
QTI9X30-2470	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010214.1a	Updated stack to address multiple issues, including: - QTI9X30-2422 - Module returns SIM failure when executing AT+COPS=0 after AT+COPS=2 - QTI9X30-2323 - FPLMN list not updating when issuing at+cops=2 - QTI9X30-2339 - Fixed accuracy level reported in QMI_LOC_GET_FIX_CRITERIA - QTI9X30-2467 - MBIM is not functional after several S3/resume cycle	SYSTEM
QTI9X30-2439	Update AT+WDSS	Update AT+WDSS so APN can be cleared	AVMS / AT
QTI9X30-2461	Do not reply to IPv4 PING	Do not reply to PING requests when there is no end-to-end data session	DATA
QTI9X30-2445	FW Package Version String	Fix FW package version string reported to AVMS. The issue prevents Release 20 to be used for FOTA.	FOTA
QTI9X30-2447	AT command enable/disable DPO	Added AT command to enable or disable Dynamic Power Optimization to improve GPS	GNSS / AT
QTI9X30-2481	Add support to disable low current	Add setting to disable the module from entering low current	POWER
QTI9X30-2444	Increment IMEI SV to 14	Increment IMEI SV to 14 for PTCRB requirements	PTCRB
QTI9X30-2452	eUICC Support	Added support for eUICC	UICC
QTI9X30-2487	MBIM unresponsive	Added a fix where MBIM is not responsive after several S3 / resume cycles	USB
QTI9X30-2485 QTI9X30-2484	Device lost in Device Manager	Fixed an issue where the device is not found in Device Manager after several S3/S4/CB tests	USB

11.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2374	MC7455 is replying to ping	Able to ping device with public IP address	SYSTEM

Template #:	4124005	Revision:	03.07

12 SWI9X30C 2.0 Release 20

This section describes changes since the previous major release.

12.1 Software Release Description

12.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.27.01.00
Application	SWI9X30C_02.27.01.00
Date of generation	2017/09/15 18:38:46 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	13
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010210.1-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

12.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	Build 4783	
Skylight	4670	
Linux QMI SDK	04.00.11	

12.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4770

12.2 Software Changes Description

12.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

Template #:	4124005	Revision:	03.07

ID	Title	Description	Affected Domain
QTI9X30-2368	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010210.1 to trunk	Updated stack to address multiple issues also contained in this list - CR 1058112: QTI9X30-2212 - Add support for +CCID - CR 833912, CR 971372: QTI9X1555-1154 - Modem crashes after 1 day with active GPS tracking session - CR 838693: MOLEMMC9X30-775 - Module reset once CA (B2+B12) is assigned on Pioneer Cellular network - CR 821118, 825838, 872900: MOLEMMC9X30-758 - AT+CRSM commands cause the SIM failure and module unable to register to the network	SYSTEM
QTI9X30-2393	Increment SVN to 13 on trunk	Required since last certification	SYSTEM
QTI9X30-2424	Add TaskName in AT!GCDUMP	Task name now displayed in dump output	SYSTEM
QTI9X30-2181	Prevent AT IMAGE from displaying special NVUP files in carrier PRI directory	Special files which are not part of the main carrier PRI were visible in AT commands and QMI objects	IMSW
QTI9X30-2156	Port SUBNETMSKENABLE for subnet customization	Added ability to set subnet mask	
QTI9X30-2400	+WDSI: 13 not returned when installing a package with incorrect value public key	AT+WDSI was not returning result "13" when installing a package with an incorrect Public key	AT
QTI9X30-2418	Change AVMS and IDS to use correct internal result code	AVMS and IDS were passing the incorrect result code to DS task. This could result in a fatal error if messages were interrupted by inbound characters on the AT port	AT
QTI9X30-2403	WDSS returns missing \r\n at the beginning and end of +WDSI response in EM7455	AT command output format differed from other products	AT
QTI9X30-2001	AT!FLOG? hangs the AT port when logs are too large	Buffer pool could be exhausted by attempting to send entire log file at once	FLOG
QTI9X30-2367	Log entries out of order in AT FLOG	Race condition existed between appending of logs from bootloader vs. application	FLOG
QTI9X30-2415	QMI_SWI_M2M_AVMS_EVENT_IND does not set severity for TLV 0x10 correctly	Severity was being set as 0. Valid values are: 0x01 – Mandatory, 0x02 – Optional	QMI
QTI9X30-2267	2D Fix but not "3D Fix" is displayed in a result of !GPSLOC?	Altitude now assumed to be 3D, with uncertainty provided in command output	GNSS
QTI9X30-2343 QTI9X30-2309	GNSS fixtimeout is used only for first fix in a tracking session	GPS session timeout for AT sessions was reset to the default after the first fix in a tracking session	GNSS
QTI9X30-2012	Sprint - MBB PollingInterval node issues	Insufficient storage used for polling interval	OMA-DM

ID	Title	Description	Affected Domain
QTI9X30-2408	Integrate QTI service task 000010197.1.103513.2.119347.1	Service task to address multiple issues also contained in this list - QTI9X30-2396 - Modem disconnects with UIM events and commands - QTI9X30-2255 - MBIM failure when reading eUICC profiles	eUICC
QTI9X30-2410	Integrate QTI patch MDM9635M.LE.3.0.c2\MDM9635M.LE.3.0.c2-000010208.1.121256.1	APSS patch to address MBIM eUICC issues:	eUICC
QTI9X30-2262	Add support for AT+CCHO AT+CCHC AT+CCLA	Added support for eUICC Connectivity Ready commands: AT+CCHO AT+CCHC AT+CCLA	eUICC
QTI9X30-2405	Cellular value "WCDM" is not in WCDMA range	Unsupported technology value reported to server	LWM2M
QTI9X30-2407	Command read Power Source Voltage (AT+WDSW=3,0/3/0/7) always returns -1	Missing boundary check was causing out-of-range value to be returned	LWM2M
QTI9X30-2320	Verify that latest LWM2M updates are ported to 9x30	LWM2M AVC DM session would fail if DM credentials are shorter than Bootstrap credentials	LWM2M
QTI9X30-2275	Add retry mechanism in IDS for reporting firmware update	Update reporting was only being attempted once, regardless of network availability	OMA-DM
QTI9X30-2395	RTN Reset command returns ERROR	Incorrect path for configuration file was introduced to AT!CARRIERRESET	NV
QTI9X30-2215	Integrate USB updates from code aurora	USB stability updates	USB

12.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2374	MC7455 is replying to ping	Able to ping device with public IP address	SYSTEM
QTI9X30-2422	Module returns SIM failure when executing AT+COPS=0 after AT+COPS=2	Logic change introduced in latest call stack causes sequence to result in an error. Module remains off-line	SYSTEM

13 SWI9X30C 2.0 Release 19

This section describes changes since the previous major release.

13.1 Software Release Description

13.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.26.01.00
Application	SWI9X30C_02.26.01.00
Date of generation	2017/09/15 18:38:46 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	11
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010202.1-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

13.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	Build 4624	
Skylight	4670	
Linux QMI SDK	04.00.04	

13.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4761

13.2 Software Changes Description

13.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Affected Domain
QTI9X30-2349	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010202.1 to trunk	Updated stack to address multiple issues also contained in this list - CR 949258 - UIM to vote for sleep while powering down the inactive slot during notifying error (QTI9X30-2254) - CR 923119 - FR#24808 - mbn update (MOLEMMC9X30-677) - CR 824256 - Remove deadlock timer for TTD_CFG_REQ (QTI9X30-2344) - CR 1040559 - Lykan|JO2.0.1|DS is not responding back with cleanup resulting delayed STOP_MODE_REQ (MOLEMMC9X30-709) - CR 817752 - Avoid Meas Config validation when PCI lock feature is enabled (MOLEMMC9X30-690) - CR 2024048 - Mismatch between NV size causing default settings to be used (QTI9X30-2233) - CR 2038259 - SSL handshake failure for TLS1.2 (QTI9X30-2277) - CR 869531 - Use subfn-based action time for shared RF chain tuning msg flow CR 883281 - UE crash seen with SRX and carrier aggregation CR 877956 - New Message Handling type between ML1 and FW (MOLEMMC9X30-655) - CR 2053586 - Do not append the file path during the stream APDU select using file ID (MOLEMMC9X30-604)	SYSTEM
QTI9X30-2266	Apply CRs for modem firmware vulnerabilities	Patches for modem firmware vulnerabilities CVE-2017-0460, CVE-2017-0525	SYSTEM
QTI9X30-2281	CVE-2017-7187	Patch for modem firmware vulnerability CVE-2017-7187	SYSTEM
QTI9X30-2303	CVE-2016-10229	Patch for modem firmware vulnerability CVE-2016-10229	SYSTEM
QTI9X30-2294	Increment SVN to 11 (trunk)	Increment SVN to 11	SYSTEM
QTI9X30-2334	GPS AT Notifications interfering with asynchronous AT commands	GPS Asynchronous AT command handler improperly called for non-AT events	GNSS
QTI9X30-2353	GPSXTRASTATUS return incorrect format	Formatting of AT!GPSXTRASTATUS? did not match other products	GNSS
QTI9X30-2233	Galileo / Beidou & TTFF	Galileo and Beidou are not used for first fix. Those satellites are only used after location is obtained and determined to be outside of USA (regardless of AT!GNSSCONFIG setting)	GNSS
QTI9X30-2285	Apply QCT patch for Code 10 or Code 43 after OS recovery	MBIM interface could not be re-opened if improperly closed - during PC shutdown	MBIM
QTI9X30-2265	Apply patch for IPv6 data over Wi-Fi tethering not working in Win 10	IPv6 data over Wi-Fi tethering not working with Windows 10	MBIM

Template #:	4124005	Revision:	03.07

ID	Title	Description	Affected Domain
QTI9X30-2337	Potential DSM buffer exhaustion if AT port held during unsolicited messages	Asynchronous notifications were continuing to consume buffers while an AT command was in progress	AT
QTI9X30-2322	AT+COPN ends with ERROR	GSM character set does not support ü in operator name "Vodafone Türkiye". Changed to 'u'	AT
QTI9X30-2284	QMI_WDS_SET_EVENT_REPORT_MSG returns incorrect rx_ok_bytes_count	QMI_WDS_SET_EVENT_REPORT_MSG was returning an incorrect rx_ok_bytes count when values are high. This was due to a formatting error	QMI
QTI9X30-2239	Initial DHCP client lease status indications not occurring	First QMI indication generated during initial network attach failed to be sent to the host	QMI / DHCP
QTI9X30-2345	Do not touch OMA-DM settings with QMI_SWI_M2M_AVMS_SET_SETTINGS	AVMS QMI objects were incorrectly modifying OMA-DM settings. Modification of OMA settings by these objects is now removed	QMI / OMA-DM
QTI9X30-2272	LTE-BTR-1-9893 Device Initiated Detail Reporting upon non-FOTA update	IDS session not established after FW update if device did not attach within 30s of startup. Timer extended	OMA-DM
QTI9X30-2308	LWM2M AVC session fails if PSK has leading 0x00	Leading zero in PSK causes a strlen check to return 0 and DTLS connection is not established	LWM2M
QTI9X30-2260	Fix LWM2M UTC Offset (3.0.14) when in western hemisphere	UTC offset calculation in the western hemisphere incorrect due to unsigned variable type	LWM2M
QTI9X30-2350	Add LG Uplus to list of known carriers	Update internal list of carriers to include LG Uplus	IMSW
QTI9X30-2254	UIM2ENABLE prevents entering lpm 3mA	Inactive UIM2 not voting for sleep	SIM
QTI9X30-2295	Support for non-numeric character in SIM ICCID MBIM	Error in QCT code was causing ICCIDs with hex characters to be truncated in VanUI	SIM
QTI9X30-2279	Support for non-numeric character in SIM ICCID	Added support for hex characters in ICCID	SIM
QTI9X30-2363	Add eUICC MBIM support	Initial eUICC MBIM support	eUICC
QTI9X30-2277	UE Fails to communicate with https: type Motive Server address	CR 2038259: Error in Qualcomm TLS library was causing an SSL handshake failure for some cipher suites when using TLS 1.2. Updated to new library	SSL/TLS
QTI9X30-2344	MC7455 resets periodically on Sprint network - Crash 3	CR 824256 - Remove deadlock timer for TTD_CFG_REQ	RRC
QTI9X30-2313	Unlocked debug command allows printing of PSK and PSKID in QXDM logs	DM logs displaying PSK and PSKID when unlocked	DIAG
QTI9X30-2297	Update build scripts to use UTC timestamps	Builds were using local time (PST or PDT)	TOOLS

13.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2222	LWM2M node 4.0.4	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M

Template #:	4124005	Revision:	03.07

ID	Title	Description	Impacted Domain
QTI9X30-2309	GNSS fix timeout value is ignored when GPS autostart set to NMEA port opened	NMEA was added to auto-start on the 74XX. Check of NMEA_SESSION_ID now included in GNSS auto-start	GNSS
QTI9X30-2343	GNSS fixtimeout is used only for first fix in a tracking session	User-configured timeout being overwritten by default after first fix	GNSS
QTI9X30-2374	MC7455 is replying to ping	Able to ping device with public IP address	SYSTEM

Template #:	4124005	Revision:	03.07

14 SWI9X30C 2.0 Release 18.2

This section describes changes since the previous minor release, 18.1.

14.1 Software Release Description

14.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.24.05.06
Application	SWI9X30C_02.24.05.06
Date of generation	2017/05/19 13:23:09 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	12
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010189-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

14.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	Build 4624	
Skylight	4670	
Linux QMI SDK	04.00.04	

14.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4692

14.2 Software Changes Description

14.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Affected Domain
QTI9X30-2277	UE Fails to communicate with https: type Motive Server address	CR 2038259: Error in Qualcomm TLS library was causing an SSL handshake failure for some cipher suites when using TLS 1.2. Updated to new library	TLS
QTI9X30-2308	LWM2M AVC session fails in some rare cases	In some rare cases, a small percentage of devices cannot connect to AirVantage	LWM2M
QTI9X30-2303	CVE-2016-10229	Vulnerability in Linux kernel allowed code arbitrary code to be executed via UDP traffic https://nvd.nist.gov/vuln/detail/CVE-2016-10229	UDP

ID	Title	Description	Affected Domain
QTI9X30-2298	Increment SVN to 12	Increment SVN to 12	SYSTEM

14.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2222	LWM2M node 4.0.4	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M
QTI9X30-2233	Galileo / Beidou & TTFF	Galileo and Beidou are not used for first fix. Those satellites are only used after location is obtained and determined to be outside of USA (regardless of AT!GNSSCONFIG setting)	GNSS
QTI9X30-2254	Device does enter lowest-current state with UIM2 enabled and no SIM present	If UIM2 is enabled and a SIM is never inserted in SIM slot 2, the modem does not enter low-current state	SIM / SYSTEM

Template #:	4124005	Revision:	03.07

15 SWI9X30C 2.0 Release 18.1

This section describes changes since the previous major release, 18.

15.1 Software Release Description

15.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.24.05.03
Application	SWI9X30C_02.24.05.03
Date of generation	2017/04/28 20:24:22 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	10
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010189-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

15.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	Build 4624	
Skylight	4670	
Linux QMI SDK	04.00.04	

15.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Firmware Package Build 4685

15.2 Software Changes Description

15.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Affected Domain
QTI9X30-2265	IPv6 data over Wi-Fi tethering not working in Win 10	Devices connected to the Win 10 mobile hotspot feature were not receiving IPv6 address	RMNET
QTI9X30-2279	Support for non-numeric character in SIM ICCID	Allow AT and QMI to read hex-digits in ICCID	AT/QMI
QTI9X30-2239	Initial DHCP client lease status indications not occurring	Timing was causing host to not receive DHCP client indications	QMI
QTI9X30-2285	Apply QCT patch for Code 10 or Code 43 after OS recovery	MBIM interface could not be re-opened if it was improperly closed during host OS recovery	MBIM

ID	Title	Description	Affected Domain
QTI9X30-2295	Support for non-numeric character in SIM ICCID - MBIM fix	Error in QCT code was causing ICCIDs with hex characters to be truncated in VanUI	MBIM
QTI9X30-2272	[AT&T] LTE-BTR-1-9893 - Device Initiated Detail Reporting upon non-FOTA update	Local firmware or PRI update would not be reported if the device took more than 30s to attach after update completed	OMA-DM
QTI9X30-2260	Fix LWM2M UTC Offset when in western hemisphere	Sign error was occurring in UTC offset calculation for latitudes West of 0°	LWM2M
QTI9X30-2293	Increment SVN to 10	Increment SVN to 10	SYSTEM

15.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2222	LWM2M node 4.0.4	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M
QTI9X30-2233	Galileo / Beidou & TTFF	Galileo and Beidou are not used for first fix. Those satellites are only used after location is obtained and determined to be outside of USA (regardless of AT!GNSSCONFIG setting)	GNSS
QTI9X30-2254	Device does enter lowest-current state with UIM2 enabled and no SIM present	If UIM2 is enabled and a SIM is never inserted in SIM slot 2, the modem does not enter low-current state	SIM / SYSTEM
QTI9X30-2277	UE Fails to communicate with https: type Motive Server address	Unable to connect to Motive server due to a bug in QCT TLS v1.2 library	TLS/SSL

Template #:	4124005	Revision:	03.07

16 SWI9X30C 2.0 Release 18

This section describes changes since the previous major release.

16.1 Software Release Description

16.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.24.03.00
Application	SWI9X30C_02.24.03.00
Date of generation	2017/03/02 21:36:45 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	9
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010189-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

16.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	Build 4624	
Skylight	TBD	
Linux QMI SDK	04.00.04	

16.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Build 4642 FW PRI Package

16.2 Software Changes Description

16.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Affected Domain
QTI9X30-2190 QTI9X30-2174	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010189.1 to trunk	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010189-STD.PROD-1 - CR 846690, 846692: Added mutexing for Common Dec8 Allocation structure to fix a rare crash when 2 PDNs are active and idle	SYSTEM
QTI9X30-2209	Increment SVN to 9	Per new external release	SYSTEM
QTI9X30-2179	Improve image recovery logic to recognize un-mountable apps filesystem	Added logic to recover from "Stuck in QDL" symptom by rebuilding images when YAFFS file system corrupted by sudden power removal	FLASH

ID	Title	Description	Affected Domain
QTI9X30-2183	VID/PID is changed to Generic SKU during S3/S4 stress test	Device provisioning could be lost if power removed while recovering from a file-system corruption	FLASH
QTI9X30-2180	OMA-DM unable to process out of sequence concatenated WAP Bootstrap SMS	AT&T: OMA-DM client was not handling concatenated SMS if out of sequence	OMA-DM
QTI9X30-2184	Device uses wrong 1226 Alert String for CIDC Step during the HFA sequence	Sprint: 1226 Alert String for HFA DC session was incorrect	OMA-DM
QTI9X30-2189	Add optional support for WM8940 audio codec	Codec enabled for audio	AUDIO
QTI9X30-2169	Unable to change from non-zero default SAR state to SAR state 0	SAR default value could not be modified over QMI if the value on start-up was non-zero	QMI
QTI9X30-2232	Implement AVMS QMI messages for LWM2M configuration parameters	Added QMI objects to QMI_SWI_M2M_AVMS_GET/SET_SETTINGS	QMI / LWM2M
QTI9X30-2196	Some modules could not enter or stay in USB suspend when used with USB 2.0 connection	Spurious interrupts caused by noise on unterminated USB3 lines would prevent device from entering low power state	USB
QTI9X30-2199	Connection reset after USB selective suspend on Win7 with Intel USB Host	Spurious suspend interrupt was causing USB controller to interpret this as USB suspended	USB
QTI9X30-2214	QCT patch for QTI9X30-2199 prevents suspend on USB 2.0	QCT code provided to resolve QTI9X30-2199 was preventing USB from suspending in USB 2.0 mode	USB
QTI9X30-2206	Fix W_DISABLE2 dependency on GPSLPM for GPS auto-start	GPS session would not re-start after toggling W_DISABLE2 with GPS auto-start enabled unless the GPSLPM customization was enabled	GNSS
QTI9X30-2228	Add DiagLogger Functionality	Enable DiagLogger support	DIAG
QTI9X30-2243	Unlocked debug command allows printing of PSK and PSKID in QXDM logs	Public shared key and shared key ID were visible in QXDM logs	DIAG
QTI9X30-2205	Add AT PRL support to query current PRL	Sprint requirement GTR-ATCMD-60027	AT / SIM
QTI9X30-2204	Update TS.25 list	PTCRB requirement	PTCRB
QTI9X30-2219	AVMS APN lost on upgrade from Release 14 to Release 16	AVMS APN was not persistent	NV

16.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2222	LWM2M node 4.0.4	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M
QTI9X30-2233	Galileo / Beidou & TTFF	Galileo and Beidou are not used for first fix. Those satellites are only used after location is obtained and determined to be outside of USA (regardless of AT!GNSSCONFIG setting)	GNSS

Template #:	4124005	Revision:	03.07

ID	Title	Description	Impacted Domain
QTI9X30-2254	Device does enter lowest-current state with UIM2 enabled and no SIM present	If UIM2 is enabled and a SIM is never inserted in SIM slot 2, the modem does not enter low-current state	SIM / SYSTEM

17 SWI9X30C 2.0 Release 17

This section describes changes since the previous major release.

17.1 Software Release Description

17.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.23.00.00
Application	SWI9X30C_02.23.00.00
Date of generation	2016/10/22 15:55:10 UTC
Binary Size	62.9 MB (compressed binary)
IMEI SV	8
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010179-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

17.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4595	
Skylight	B4527	
Linux QMI SDK	04.00.01	

17.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Build 4614 FW PRI Package

17.2 Software Changes Description

17.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2144 QTI9X30-2083 QTI9X30-2008	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010179-STD.PROD-1	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010179-STD.PROD-1 - 921808 Added support for SSL TLS V1.2 in crypto secapi software - 1052946 Modem throws an error for PS_ATTACH request when mode preference is LTE only - 1046269 SSL handshake failure due to DSS AsyncSelect/De-select failure	SYSTEM
QTI9X30-2057	Increment SVN to 8	Per new external release	SYSTEM

Template #:	4124005	Revision:	03.07

ID	Title	Description	Impacted Domain
QTI9X30-2023	AT!BAND selection table not updated without device reset	Corrected AT!BAND to show newly added TDSCDMA only entries without UE reset	AT
QTI9X30-2038	Reduce AT$DEBUG? lock-level for Sprint	Reduced lock level to low	AT
QTI9x30-2055	Add +CPINR functionality to EM74xx & MC74xx	Added AT+CPINR with a reduced set of PIN/PUK categories	AT
QTI9X30-1890	AT!BCFWUPDATESTATUS occasionally returns 'UNKNOWN' when successful	Added positive reporting of update status to avoid the false "unknown"	AT/QMI
QTI9X30-1892	Support multiple flash clients	Stability - file system lock is now acquired when accessing other non-EFS partitions	FLASH
QTI9X30-1914	AT command to set application IF and password for GPS Fix requests	Verizon requirement - AT command added to set application ID and password to be included in SUPL start message for AGPS fixes	GNSS
QTI9X30-2129	GNSS session terminated unexpectedly	Sierra internal GPS session ID was also used as the "all clients" ID. Changed to avoid conflict	GNSS
QTI9X30-2126	Power removal during image switching may cause OEM PRI to be lost	Added tracking of switching progress to allow proper recovery if interrupted by power removal or device reset	IMSW
QTI9X30-2024	Various updates to AirVantage Client	Sync-ed AirVantage client with the latest round of updates	LWM2M
QTI9X30-2147	Update SO package to use TLS 1.2	Update Sierra sockets to use TLS 1.2	LWM2M
QTI9X30-2154	AVMS empty registration payload	Change in AVMS to prevent an empty payload from being sent	LWM2M
QTI9X30-2032	MBB adapter missing after short sleep/resume cycles	Stability – handle occasional MBIM control packets dropped during USB suspend	MBIM
QTI9X30-2153	Network operator name truncated in GetHomeNetwork	Fixed problem where encoding was not taken into account in determining network name length	QMI
QTI9X30-1855	Add QMI object to query Secondary Cell RSSI in LTE Carrier Aggregation	Added QMI_NAS_SWI_GET_LTE_SCC_RX_INFO object to query Secondary Cell RSSI in LTE CA.	QMI
QTI9X30-1987	QMI indication to report timer values	Added QMI indication QMI_NAS_SWI_NETWORK_TIMERS_IND to report T3396 value when assigned by network	QMI
QTI9X30-1836	Enable support in QMI for DHCPv4 lease change indication registration status	Final stage of support for QMI_WDS_SWI_GET_DHCPV4_CLIENT_CONFIG_REQ	QMI
QTI9X30-2145	Internet Access fails After Reboot and Reconnect	Applied Qualcomm patch to clear data port after a failed resume	USB

17.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2219	Upgrade from R14 to R16 : The APN set in WDSS is lost	APN set in WDSS is lost on upgrade because global persistence attribute is not set	LWM2M
QTI9X30-2222	LWM2M node 4.0.4	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M

Template #:	4124005	Revision:	03.07

18 SWI9X30C 2.0 Release 16.2

This section describes changes since the previous major release.

18.1 Software Release Description

18.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.20.03.22
Application	SWI9X30C_02.20.03.22
Date of generation	2016/10/11 16:03:14
Binary Size	62.9MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010157.1.72754.1-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

18.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4539	
Skylight	B4527	
Linux QMI SDK	04.00.02	

18.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Build4604 FW PRI Package

18.2 Software Changes Description

18.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2129	Update Sierra internal session ID for GPS	Sierra internal session ID to end all GPS sessions was also used by Qualcomm, causing sessions to be unexpectedly ended	GPS
QTI9X30-2096	Verizon B4 RF_RRM Failing TC 8.3.3 FDD	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010157.1.72754.1 - CR 878564: Deep sleep between gaps occasionally causes RSRP overestimation	LTE

ID	Title	Description	Impacted Domain
QTI9X30-2126	Power removal during image switching may prevent OEM PRI settings from being restored	Power removal at a key point during switching could prevent persistent settings from being properly restored after the image switch completes	IMSW

18.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2219	Upgrade from R14 to R16 : The APN set in WDSS is lost	APN set in WDSS is lost on upgrade because global persistence attribute is not set	LWM2M
QTI9X30-2222	LWM2M node 4.0.4	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M

Template #:	4124005	Revision:	03.07

19 SWI9X30C 2.0 Release 16.1

This section describes changes since the previous major release.

19.1 Software Release Description

19.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.20.03.21
Application	SWI9X30C_02.20.03.21
Date of generation	2016/10/03 16:07:57
Binary Size	62.9MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010157-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

19.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4539	
Skylight	B4527	
Linux QMI SDK	04.00.02	

19.1.3 Released Files and Download Processes

Download Option	Files
CWE/NVU files	Build4604 FW PRI Package

19.2 Software Changes Description

19.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2066	MC7455 is unable to attach	Qualcomm patch to fix incorrect handling of overflow byte in NAS UL count - CR 1067871: NAS is reading wrong overflow value from SIM	NAS

19.3 Known Issues

This section presents all known issues in this release.

Template #:	4124005	Revision:	03.07

ID	Title	Description	Impacted Domain
QTI9X30-2219	Upgrade from R14 to R16 : The APN set in WDSS is lost	APN set in WDSS is lost on upgrade because global persistence attribute is not set	LWM2M
QTI9X30-2222	LWM2M node 4.0.4	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M

Template #:	4124005	Revision:	03.07

20 SWI9X30C 2.0 Release 16

This section describes changes since the previous major release.

20.1 Software Release Description

20.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.20.03.00
Application	SWI9X30C_02.20.03.00
Date of generation	2016/06/30 10:54:05
Binary Size	61.3MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010157-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

20.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4539	
Skylight	B4527	
Linux QMI SDK	03.03.17	

20.1.3 Released Files and Download Processes

Download Option	Files
Windows	B4539 Driver Installer
CWE/NVU files	Build4541 FW PRI Package

20.2 Software Changes Description

20.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
QTI9X30-1960 QTI9X30-1919 QTI9X30-1927 QTI9X30-1826 QTI9X30-1601	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010157-STD.PROD-1	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010157-STD.PROD-1 - CR 1021920: Incorrect SV IDs in GPGSA & GNGSA - CR 878306: UE not sending measurement reports on B29 in some cases. - CR 852452: TLS 1.1 failing on some sites - CR 1017623: Unresponsive AT port after FW upgrade stress test - CR 988901: AT!GSTATUS reports TX power out of range during Live Network Connection	SYSTEM
QTI9X30-1847	AT!GSTATUS	Updated AT!GSTATUS to report last cached WCDMA RSSI. Otherwise, 0 would be reported in IDLE state	AT
QTI9X30-1912	SINGLE APN SWITCH	Do not initiate SINGLEAPNSWITCH if nothing was modified on a profile update	DATA
QTI9X30-1864	Image Recovery	Improved recovery from corrupt APPS image	FLASH
QTI9X30-1907	Modem crash after starting GNSS session	If the NMEA port is not opened, and a GNSS session is started via AT commands or AUTOSTART on Power up; the module will crash after 1 hour	GNSS
QTI9X30-1879	AUTO-SIM feature	In some cases, the modem failed to reset when changing SIMs	IMSW
QTI9X30-1885	Image Switch in LPM	Image Switch was failing if W_DISABLE was asserted	IMSW
QTI9X30-1228	AVMS Session on reset	In some cases, UE was not starting an AVMS session on reset	LWM2M
QTI9X30-1908	Update LWM2M and OMADM to use TLS 1.1	Update LWM2M and OMADM to use TLS 1.1	LWM2M / OMADM
QTI9X30-1964	GetHomePLMN SDK API	GetHomePLMN does not return MCC and MNC immediately after bootup	QMI
QTI9X30-1887	Sprint HFA	UE should not open a channel with the SIM if HFA fails	SIM
QTI9X30-1258	Unresponsive AT port	Fixed memory leak for QMI indications that was causing the AT port to become unresponsive	USB
QTI9X30-95	USB 2.0 operation	Added feature to force the module to use USB 2.0	USB
QTI9X30-1054 QTI9X30-1939	Improved USB stability	Improved USB stability in long term stress tests	USB

20.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
QTI9X30-2219	Upgrade from R14 to R16 : The APN set in WDSS is lost	APN set in WDSS is lost on upgrade because global persistence attribute is not set	LWM2M
QTI9X30-2222	LWM2M node 4.0.4	IP address displayed to AirVantage is one of the active addresses, but is not necessarily one used for AirVantage connectivity	LWM2M

Template #:	4124005	Revision:	03.07

21 SWI9X30C 2.0 Release 15

This section describes changes since the previous major release.

21.1 Software Release Description

21.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.18.02.00
Application	SWI9X30C_02.18.02.00
Date of generation	2016/05/18 15:55:46
Binary Size	61.3MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010149-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

21.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4518	
Skylight	B4507	
Linux QMI SDK	03.03.16	

21.1.3 Released Files and Download Processes

Download Option	Files
Windows	B4518 Driver Installer
CWE/NVU files	Build4517 FW PRI Package

21.2 Software Changes Description

21.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
91276	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010149-STD.PROD-1	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010149-STD.PROD-1 - CR932678 / 944577: Improved device stability in long term testing. - CR1003876: Fixed crash in QIM_LOC_GET_AVAILABLE_WWAN_POSITION - CR874564: FW crash due to serving cell measurement request received/processed late - CR746175: Random Crashes were observed when Profile operations were carried out - CR988699: Don't allow to perform Ephemeris/Almanac deletion in EFS when SV bit mask is empty - CR996227: MSB E911 Sessions may be delayed when initiated during an on-going GNSS Apptracking Session (ME part) - CR958163: Device can only track fewer than expected Glonass measurements in hot start testing	SYSTEM
90093	Added support for AT+CESQ	Added support for AT+CESQ	AT
84905	Thermal Mitigation AT command	Added AT command to get Thermal Mitigation status	AT
90921	AT!GSTATUS reports incorrect SCell Diversity RSRP value	Updated AT!GSTATUS to report correct SCell Diversity RSRP value	AT
89771	AT^SYSINFO shows roaming	AT^SYSINFO shows roaming when no SIM is installed	AT
90676	SCTP	Added support for SCTP filtering	DATA
89235	DHCPv4 Client Configuration and Lease Status	Added QMI_WDS_SWI_GET_DHCPV4_CLIENT_CONFIG, AT!SCDHCPHWCONFIG, and AT!SCDHCPOPTIONS	DHCP / QMI / AT
89722	TS.25 list	Update TS.25 list in FW to April 18th, 2016	GCF / PTCRB
91255	gpsOneXTRA crash	Fixed modem crash if gpsOneXTRA is enabled and server is inaccessible. Seen on test equipment not connected to the internet.	GNSS
90496	Null characters in NMEA stream	Removed Null characters in NMEA stream	GNSS
89376	Galileo NMEA sentences	Add support for Galileo NMEA sentences	GNSS
90244	OTDOA	Enabled OTDOA by default	GNSS
90677	Sprint HFA	Fixed issue where HFA is run multiple times with an unpaired SIM	OMADM
88314	OMADM FOTA	Fixed crash during FOTA over OMADM	OMADM
91659	Power Off PIN (Full_Card_Power_Off)	On EM modules, if the Power Loss SMS/Detach feature is enabled, the Full_Card_Power_Off PIN is ignored	PC
89621	Corrected temperature state reported over QMI	Temperature level is being reported as critical warning instead of normal	QMI
90811	Corrected QMI OMADMGetSettings TLV 0x12	OMADMGetSettings TLV 0x12 is using the wrong length: 2 bytes. Corrected to use 1 byte as per Specification	QMI
91061	Add QMI NAS band masks for B28, B29, B30	Add QMI NAS band masks for B28, B29, B30	QMI

ID	Title	Description	Impacted Domain
90398	QMI_SWIOMA_DM_SESSION_START	FUMO session started with QMI_SWIOMA_DM_SESSION_START will not respond on some error scenarios	QMI
89775	QMI_GET_STORED_IMAGES	QMI_GET_STORED_IMAGES reports incorrect running image if AUTO-SIM feature is enabled	QMI
90373	IP Address not returned to host if network doesn't provide DNS address	IP Address not returned to host if network doesn't provide DNS address	QMI
90399 / 90423	QMI_SWIOMA_DM_SET_SETTINGS	Improved sanity checking of parameters in QMI request	QMI
89719	MTU reported by network	Fixed issue where the MTU stored in NV is ignored if the network reports an MTU size of 1500. Now the smaller of the NV or Network setting will be reported over QMI/MBIM	QMI / MBIM
90341	Sprint PIN1	Disable the ability to Enable/Disable PIN1 for Sprint	SIM
90294	Sprint RTN	Added support to call Reset Applet on SIM during RTN	SIM
91660	OMADM WAP Push SMS	Do not forward OMADM WAP Push SMS to host	SMS
89562	Fastboot	Added timeout to exit Fastboot after 10 seconds	USB

21.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain

22 SWI9X30C 2.0 Release 14.1

This section describes changes since the previous major release.

22.1 Software Release Description

22.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.14.03.02
Application	SWI9X30C_02.14.03.02
Date of generation	2016/04/27 11:42:07
Binary Size	61.3MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010130-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

22.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4518	
Skylight	B4477	
Linux QMI SDK	03.03.15	

22.1.3 Released Files and Download Processes

Download Option	Files
Windows	B4518 Driver Installer
CWE/NVU files	Build4517 FW PRI Package

22.2 Software Changes Description

22.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
90677	Sprint HFA	Fixed issue where HFA is run multiple times with an unpaired SIM	OMADM
90294	Sprint RTN	Added support to call Reset Applet on SIM during RTN	SIM

22.3 aKnown Issues

This section presents all known issues in this release.

Template #:	4124005	Revision:	03.07

ID	Title	Description	Impacted Domain

23 SWI9X30C 2.0 Release 14

This section describes changes since the previous major release.

23.1 Software Release Description

23.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.14.03.00
Application	SWI9X30C_02.14.03.00
Date of generation	2016/03/28 14:34:14
Binary Size	61.3MB (compressed binary)
IMEI SV	6
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010130-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

23.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4492	
Skylight	B4477	
Linux QMI SDK	03.03.15	

23.1.3 Released Files and Download Processes

Download Option	Files
Windows	B4492 Driver Installer
CWE/NVU files	Build4490 FW PRI Package

23.2 Software Changes Description

23.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
89985	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010130-STD.PROD-1	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010130-STD.PROD-1: - CR 848684, 859452: Cannot activate LTE-CA in certain scenarios - CR 916525: UE fails reselection when serving cell is not provided with a dedicated priority - CR 826809: BIP doesn't work in a DUAL SIM device set to single standby	SYSTEM

ID	Title	Description	Impacted Domain
89903	Module crash with AT+CPBR=1	Module crashes after repeatedly issuing: AT+CPBR=1	AT
89557	Data Connection on Windows 10	Changing "IP TYPE" via Windows 10 UI does not take effect with SINGLEAPN	DATA
89666	Image Switching enhancement	Fixed issue when switching images for carriers that span multiple countries.	IMSW
90095	LED blink pattern glitches	Fixed LED blink pattern glitches	LED
89725	LED Blink Pattern	LED not working with Roaming SIM, and coming out of AT+CFUN=0	LED
90089	FOTA Update	Fixed FOTA update for Sprint	LWM2M / FOTA
87674	Embedded Device type	Added support for Embedded Device type for MBIM	MBIM
88840	Sprint SPA OMADM	Add Sprint SPA OMADM Nodes	OMADM
89948	Increase IMEI SV	Increased IMEI SV to 6	PTCRB
85036	TDSCDMA SAR configuration	Add ability to configure TDSCDMA SAR via AT and QMI commands	RF
89611	Transmitter ON GPIO support	Add support for TX ON status via GPIO	RF
89812	Antenna Selection	Fixed external antenna selection lines for MC	RF
89808	Wake on WWAN PIN	Wake on WWAN PIN was turning on for longer than configured value.	WoWWAN

23.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain

24 SWI9X30C 2.0 Release 13

This section describes changes since the previous major release.

24.1 Software Release Description

24.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.13.01.00
Application	SWI9X30C_02.13.01.00
Date of generation	2016/03/07 21:28:34
Binary Size	61.3MB (compressed binary)
IMEI SV	5
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010127-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

24.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4473	
Skylight	B4477	
Linux QMI SDK	03.03.15	

24.1.3 Released Files and Download Processes

Download Option	Files
Windows	B4473 Driver Installer
CWE/NVU files	Build4481 FW PRI Package

24.2 Software Changes Description

24.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
89474	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010127-STD.PROD-1	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010127-STD.PROD-1: - CR 881101: Restoring LTE band values back to defaults if RRC message does not contain band info - CR 842022: Added support for BCS-1 for 7+28 CA combo - CR 843496: Fixed crash during MO OTDOA positioning	SYSTEM

ID	Title	Description	Impacted Domain
89025	Update AT!SELRAT and AT!BAND	Update AT!SELRAT and AT!BAND for TDSCDMA	AT
88669	DHCPv4 Client Configuration and Lease Status	Add support for DHCPv4 Client Configuration and Lease Status	DHCP / QMI
85533	NMEA output rate	In USB 3.0, fixed an issue where NMEA sentences would not be reported if the output rate was set to more than 5 seconds.	GNSS
87475	AT!GPSCOLDSTART	End all GPS sessions if AT!GPSCOLDSTART is entered	GNSS
88357	FW SIM based image switching	FW SIM based image switching not working for PIN locked SIMs	IMSW
87187	AT+LED	[Sprint] Add support for AT+LED	LED / AT
89137	LED Configurability	Add support for LED Configurability	LED
85666	AirVantage LWM2M Objects	Added support for AirVantage LWM2M Reset Counters	LWM2M
87452 / 87453	Add Sprint OMADM features	Add Sprint OMADM features	OMADM
88716	OMADM FOTA	Added support for OMADM FOTA	OMADM
89233 / 88363	Power loss SMS and Detach	Improvements to Power Loss SMS and Detach feature	PC
85798	Add QMI object to indicate a reboot is pending	Added QMI_DMS_SWI_GET_RESET_INFO	QMI
88674	USB Stability	Improved USB Stability over long term reset test	USB
86639	Improve USB Enumeration time	Improve USB Enumeration time by 2 seconds	USB

24.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
89812	Antenna Selection	External Antenna Selection lines not working for MC products	RF

25 SWI9X30C 2.0 Release 12

This section describes changes since the previous major release.

25.1 Software Release Description

25.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.11.03.00
Application	SWI9X30C_02.11.03.00
Date of generation	2016/02/09 13:51:57
Binary Size	61.2MB (compressed binary)
IMEI SV	5
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010120-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

25.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4452	
Skylight	B4432	
Linux QMI SDK	03.03.14	

25.1.3 Released Files and Download Processes

Download Option	Files
Windows	B4452 Driver Installer
CWE/NVU files	Build4455 FW PRI Package

25.2 Software Changes Description

25.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
88366	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010120-STD.PROD-1	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010120-STD.PROD-1: - CR 955594: Fixed data transfer issue when using 2 RMNET interfaces. - CR 938261: [GCF] Fix for LTE-RRM case 8.3.3 - CR 902412: SIM is being powered down when upon receiving an invalid APDU in ICC mode for SELECT command - CR 951450: In certain scenarios fixed AT and NMEA indications when USB is suspended	SYSTEM
87891 / 88123	Improve reset sequence	Improve reliability of reset sequence observed during long term testing	SYSTEM
88000	Increase IMEI SV	Increased IMEI SV to 5	PTCRB
86959	Modem crash after AT&V command	Modem crash after AT&V command	AT
87189 / 83539 / 87188 / 87191 / 87186	Sprint AT commands	Add support for Sprint AT commands	AT
84394	Update AT!SELRAT	Add TDSCDMA support for AT!SELRAT	AT
87584	Fixed AT!GPSLBSAPN	AT!GPSLBSAPN was not taking affect	AT
85577	FTM TX power configuration in WCDMA and LTE	Add support for FTM TX power configuration in WCDMA and LTE	FTM
85477	Update gpsOneXTRA HTTP request	Update gpsOneXTRA HTTP header to comply with Qualcomm's guidance.	GNSS
82401	Restart GPS Session when transitioning from LPM to ONLINE	If NMEA port is open, restart GPS Session when transitioning from LPM to ONLINE	GNSS
83612	Image Switching enhancement	Add support to carriers that span multiple countries.	IMSW
85718	Image Switching enhancement	Modem resets twice when upgrading FW+PRI and the target firmware is already available in the modem	IMSW
88079 / 87738 / 79089	LED Enhancements	Add support for LED blink patterns.	LED
88310	Update revision string to include Carrier PRI for AirVantage LWM2M	Update revision string to include Carrier PRI for AirVantage LWM2M	LWM2M
86584	Add support for AirVantage LWM2M QMI messages	Add support for AirVantage LWM2M QMI messages	LWM2M
87670 / 87263	Fixed FOTA update failure	Fixed FOTA update via LWM2M	LWM2M / FOTA
88001	OMADM SyncML Message update	Add TargetRef field to SyncML message for Verizon	OMADM
85125	Sprint OMADM	Add support for Sprint OMADM	OMADM
87802	Add support for OMA polling	Add support for OMA polling	OMADM
85610	Power down SMS	Add support to send an SMS when power failure is reported by host through W_DISABLE Pin	PC

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ID	Title	Description	Impacted Domain
88362	UE incorrectly release existing PDP Context	On a Windows platform, the UE releases the existing PDP Context when going OoS within 30 seconds.	PDN
88407	Update QMI_NAS_GET_LTE_CPHY_CA_INFO	Bands 28, 29, 30 and 32 are not correctly reported in QMI_NAS_GET_LTE_CPHY_CA_INFO	QMI
87283	Update QMI_NAS_SWI_MODEM_STATUS	LTE band 28 is incorrectly reported in QMI_NAS_SWI_MODEM_STATUS as 45	QMI
87725	LTE B41 Attach failure	Observed attach failures in low signal environment for LTE B41	RF
87403	Improved signal strength reporting	Improved signal strength reporting to the host	UI

25.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain

26 SWI9X30C 2.0 Release 11

This section describes changes since the previous major release.

26.1 Software Release Description

26.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.08.02.00
Application	SWI9X30C_02.08.02.00
Date of generation	2016/01/06 20:38:53
Binary Size	61.2MB (compressed binary)
IMEI SV	4
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010114-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

26.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4437	
Skylight	B4429	
Linux QMI SDK	03.03.13	

26.1.3 Released Files and Download Processes

Download Option	Files
Windows	B4437 Driver Installer
CWE/NVU files	Build4440 FW PRI Package

26.2 Software Changes Description

26.2.1 Validated Corrections / Improvements

This section presents all corrections or improvements integrated in this release.

ID	Title	Description	Impacted Domain
87356	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010114-STD.PROD-1	Add Qualcomm Stack MDM9635M.LE.3.0.c2-000010114-STD.PROD-1: - CR 949351 / 949619: USB Stability fixes - CR 791775, 922988, 929557, 823043, 860163: Critical AT&T CRs - CR 834408, 809321: [GCF] LTE-RRM case 4.2.2 - CR 946862: Verizon OMADM issue - CR 837757: Improved device stability in very long term power cycle stress testing. - CR 806781: Fixed crash if AT commands are entered immediately after power up.	SYSTEM
86579	Increase IMEI SV	Increased IMEI SV to 4	PTCRB
84544	SINGLEAPN feature	Added support for Sierra Wireless SINGLEAPN feature	DATA
85663 / 85664 / 85665 / 85662	AirVantage LWM2M Objects	Added support for various AirVantage LWM2M Objects	LWM2M
85616	MO SMS	Unable to send MO SMS if Dual SIM is enabled	SMS
84112	GNSS Reference location	Add support to report Cell Tower Reference Location if a location is not available via satellites	GNSS
82659	GPS_DISABLE PIN	Add support for the GPS_DISABLE PIN (W_DISABLE#2) to stop GPS sessions started over QMI	GNSS
82070	AT!GPSSATINFO	Update AT!GPSSATINFO to include Beidou and Galileo	GNSS / AT
85931	AT!GSTATUS	Update AT!GSTATUS to correctly report status of Carrier Aggregation when SCC is configured but not active	AT
85533 / 85533 / 86397	AT and NMEA port indications	Fixed issue where unsolicited notifications would sometimes ot be delivered over the AT or NMEA port for USB 2.0, if the port was idle for greater than 5 seconds.	AT / NMEA
86674	TS.25 list	Update TS.25 list in FW to 2015/11/30	GCF / PTCRB
84520	MBIM_CID_DEVICE_CAPS	Added the ability to configure the Device Type in the MBIM_CID_DEVICE_CAPS response	MBIM
82166	LTE Reject cause over QMI	Update QMI_NAS_NETWORK_REJECT_IND to report reject cause: ESM Failure	QMI
84187	QMI_QOS_SWI_READ_DATA_STATS TX	Fixed packet and TX packet drop counters	QMI
86541	USB 2.0	If USB 2.0 is detected, USB 3.0 support will not be included in the USB Descriptor	USB

26.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
85533	NMEA output rate	NMEA output rate greater than 5 seconds is not supported on USB 3.0	GNSS
85718	Image Switching	The Linux SDK will report an image switch failure when only the Carrier PRI needs to be downloaded. The image switch is successful	Linux SDK

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27 SWI9X30C 2.0 Release 10.2

This section describes changes since the previous major release.

27.1 Software Release Description

27.1.1 Release identification

Component	Revision
Boot loader	SWI9X30C_02.05.07.00
Application	SWI9X30C_02.05.07.00
Date of generation	2015/12/04 22:23:15
Binary Size	61.2MB (compressed binary)
IMEI SV	3
Qualcomm Stack Version	MDM9635M.LE.3.0.c2-000010108-STD.PROD-1
Supported H/W	EM7455, MC7455, EM7430, MC7430

27.1.2 Software Tools Versions

S/W Tools Name	Version	Resource file
Windows Driver Package	B4427	
Skylight	B4405	
Linux QMI SDK	03.03.12	

27.1.3 Released Files and Download Processes

Download Option	Files
Windows	B4427 Driver Installer
CWE/NVU files	Build4426 FW PRI Package

27.2 Software Changes Description

27.2.1 Validated Corrections / Improvements

N/A (initial commercial release).

27.3 Known Issues

This section presents all known issues in this release.

ID	Title	Description	Impacted Domain
83752 / 83753 / 83754	USB Stability	In rare instances, module may disappear from Windows Device Manager after long term testing on some platforms.	USB

ID	Title	Description	Impacted Domain
85533	NMEA output rate	NMEA output rate greater than 5 seconds is not supported	GNSS

28 Troubleshooting

Please contact customer service for support and debug

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29 Certification Description

None

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30 Restrictions and Additional Information

This section presents additional information or restrictions that must be taken into account.

ID	Description (What/When)	Impacted Domain